V Mount

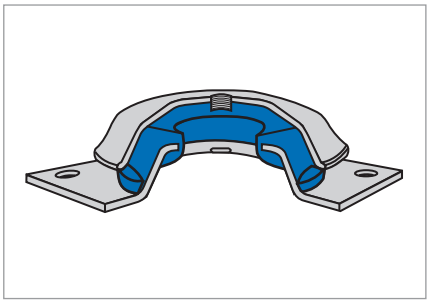


Fig. 1 V Mount

Material

Standard material	Hardness
Natural rubber NR 11	40, 45, 50, 60, 65 Shore A

Operating conditions

Axial forces in Z direction	500 N ... 32000 N	Maximum permissible force
Max. temperature	up to 60 °C, transient up to +80 °C	
Min. temperature	up to −45 °C	

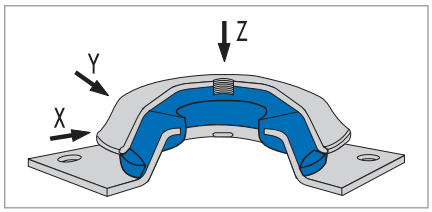


Fig. 2 Primary load directions

Product description

V mounts are ideal for a multiplicity of applications in vibration control and structure-borne sound insulation.

Product advantages

- Chrome-free galvanisation for optimum corrosion protection
- Easy fitting
- Maintenance-free
- Good insulation even at low interference frequencies
- RoHS-compliant.

Application

The range of possible applications for V mounts includes internal combustion engines, electric motors, pumps, compressors and tool machines. V mounts are also used for maritime engineering. There are versions with type approval from Lloyds Register of Shipping available.

V mounts feature a robust compressive-deflection stop in the vertical direction (Z direction). The same high stiffness in both horizontal directions (X,Y) prevents a "floating", i.e. a lateral deflection of the vibration-insulated driven machinery, the machine or the engine. Versions with built-in tensile stops are also offered which limit the limit rebound in (−Z) direction. All V mounts are limited in their radial spring displacement at the same time. The bell-shaped designed top section of the mount protects against too strong a compressive deflection and dripping media (e.g. oil). When subjected to extreme overload a positive lock forms between the top and bottom section of the mount. The progressive spring characteristic and a thin rubber layer on the stop collar of the bottom section prevents a hard metal impact. The primary load direction (+Z) is perpendicular to the planes of attachment centred to the cap.

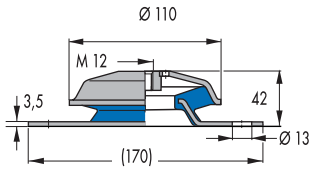
Design notes

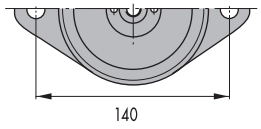
V mounts comprise a flat, cylindrical metal cap with threaded insert and a base plate with rectangular flange and through-holes. Both metal parts are aligned parallel on top of each other and joined with a vulcanised elastomer insert.

Fitting & installation

- V mounts are designed to be secured by means of threaded fasteners
- Individual components permit slight adjustment to allow for in-situ offset
- It is important to ensure that the mating faces of the frame and the mass carried by the mount are flat and smooth
- Position the mount relative to the static load in such a way that the cap and the flange are preloaded relative to each other.

Article list V Mount





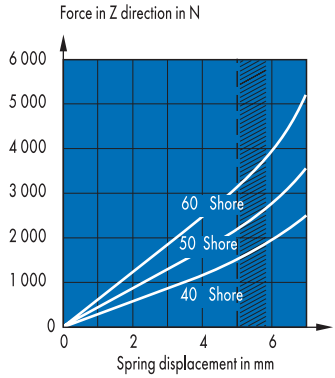
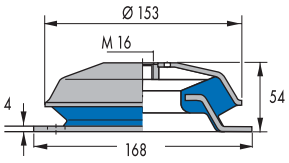
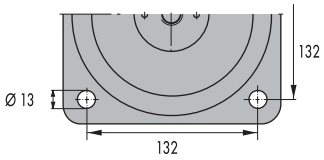


Fig. 3 V Mount 050 18 042

Nominal maxima			Stiffness		Product No.	Material	Stop	Article No.	
Axial			Radial						
$F_{z\,max}$	$s_{z\,max}$	c_z	$c_{x,\,y}$ (s_z=0)	$c_{x,\,y}$ (s_z=4)					
[N]	[mm]	[N/mm]	[N/mm]	[N/mm]					
2000	5	400	310	380	5018 042	40 NR 11	without	96517	●
2700	5	540	450	560	5018 042	50 NR 11	without	96518	●
4300	5	860	660	820	5018 042	60 NR 11	without	91131	●

● Available from stock ○ On request: Tool is available, delivery at short notice





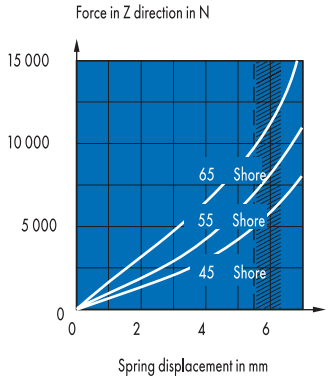
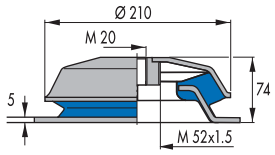


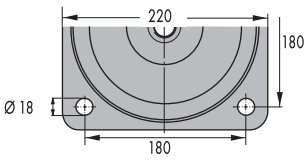
Fig. 4 V Mount 050 18 052

Nominal maxima			Stiffness		Product No.	Material	Stop	Article No.	
Axial			Radial						
$F_{z\,max}$	$s_{z\,max}$	c_z	$c_{x,\,y}$ (s_z=0)	$c_{x,\,y}$ (s_z=4)					
[N]	[mm]	[N/mm]	[N/mm]	[N/mm]					
5500	5	1100	590	770	5018 052	45 NR 11	without	96526	●
7700	5	1540	850	1100	5018 052	55 NR 11	without	96527	●
12200	5	2440	1200	1550	5018 052	65 NR 11	without	96528	●

● Available from stock ○ On request: Tool is available, delivery at short notice

Article list V Mount





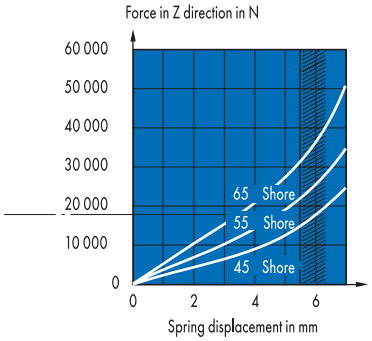
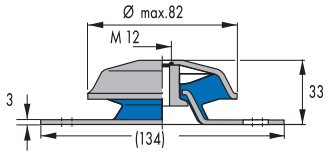


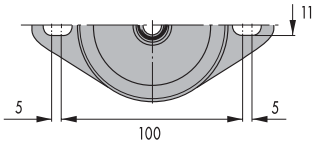
Fig. 5 V Mount 050 18 062

Nominal maxima			Stiffness		Product No.	Material	Stop	Article No.	
Axial			Radial						
$F_{z\ max}$	$s_{z\ max}$	c_z	$c_{x,\ y}$ (s_z=0)	$c_{x,\ y}$ (s_z=4)					
[N]	[mm]	[N/mm]	[N/mm]	[N/mm]					
13200	5	2640	1800	2250	5018 062	45 NR 11	without	96537	●
30900	5	6180	2700	3300	5018 062	55 NR 11	without	96536	●
32000	5	6400	3900	4800	5018 062	65 NR 11	without	96535	●

● Available from stock ○ On request: Tool is available, delivery at short notice

Article list V Mount with stop





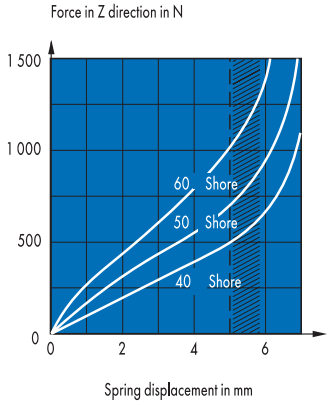
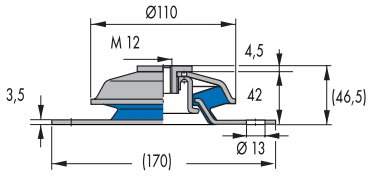
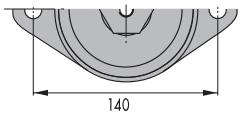


Fig. 6 V Mount 050 18 033

Nominal maxima			Stiffness		Product No.	Material	Stop	Article No.	
Axial			Radial						
$F_{z\ max}$	$s_{z\ max}$	c_z	$c_{x,\ y}$ (s_z=0)	$c_{x,\ y}$ (s_z=4)					
[N]	[mm]	[N/mm]	[N/mm]	[N/mm]					
500	5	100	140	180	5018 033	40 NR 11	with	96538	●
700	5	140	200	250	5018 033	50 NR 11	with	96511	●
1000	5	200	280	360	5018 033	60 NR 11	with	96513	●

● Available from stock ○ On request: Tool is available, delivery at short notice





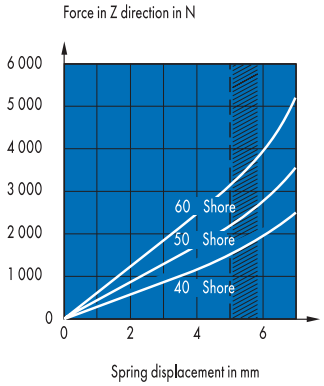
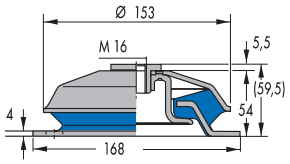
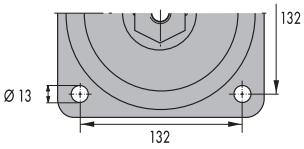


Fig. 7 V Mount 050 18 043

Nominal maxima			Stiffness		Product No.	Material	Stop	Article No.	
Axial			Radial						
$F_{z\,max}$	$s_{z\,max}$	c_z	$c_{x,\,y}$ (s_z=0)	$c_{x,\,y}$ (s_z=4)					
[N]	[mm]	[N/mm]	[N/mm]	[N/mm]					
1500	5	300	310	380	5018 043	40 NR 11	with	96520	●
2600	5	520	450	560	5018 043	50 NR 11	with	596521	●
4300	5	860	660	820	5018 043	60 NR 11	with	96522	●

● Available from stock ○ On request: Tool is available, delivery at short notice





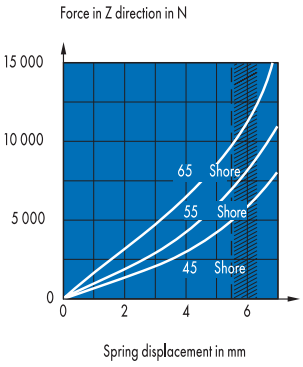
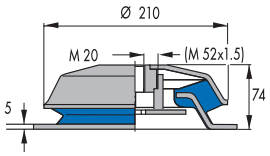


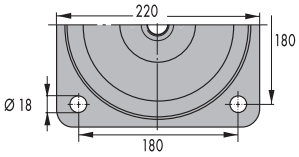
Fig. 8 V Mount 050 18 053

Nominal maxima			Stiffness		Product No.	Material	Stop	Article No.	
Axial			Radial						
$F_{z\,max}$	$s_{z\,max}$	c_z	$c_{x,\,y}$ (s_z=0)	$c_{x,\,y}$ (s_z=4)					
[N]	[mm]	[N/mm]	[N/mm]	[N/mm]					
5500	5	1100	590	770	5018 053	45 NR 11	with	96529	●
7700	5	1540	850	1100	5018 053	55 NR 11	with	96530	●
12200	5	2440	1200	1550	5018 053	65 NR 11	with	96531	●

● Available from stock ○ On request: Tool is available, delivery at short notice

Article list V Mount with stop





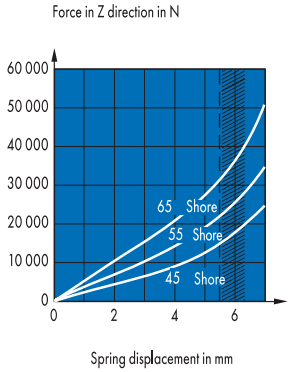
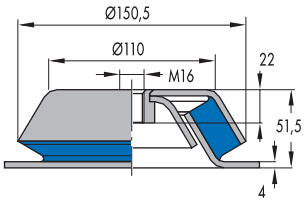
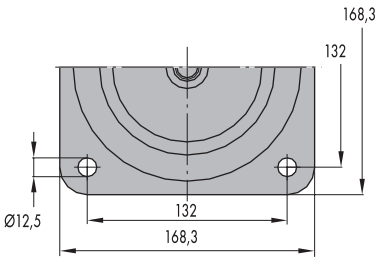


Fig. 9 V Mount 050 18 063

Nominal maxima			Stiffness		Product No.	Material	Stop	Cat. No.	
Axial			Radial						
$F_{z\,max}$	$s_{z\,max}$	c_z	$c_{x,\,y}$ (s_z=0)	$c_{x,\,y}$ (s_z=4)					
[N]	[mm]	[N/mm]	[N/mm]	[N/mm]					
13200	5	2640	1800	2250	5018 063	45 NR 11	with	49040497	○
30900	5	6180	2700	3300	5018 063	55 NR 11	with	49040498	○
32000	5	6400	3900	4800	5018 063	65 NR 11	with	49040499	○

● Available from stock ○ On request: Tool is available, delivery at short notice





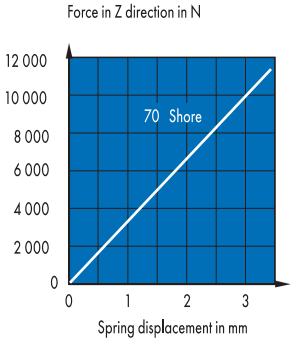


Fig. 10 V Mount 050 18 083

Nominal maxima			Stiffness		Product No.	Material	Stop	Cat. No.	
Axial			Radial						
$F_{z\,max}$	$s_{z\,max}$	c_z	$c_{x,\,y}$ (s_z=0)	$c_{x,\,y}$ (s_z=4)					
[N]	[mm]	[N/mm]	[N/mm]	[N/mm]					
10000	3	3330	–	–	5018 083	70 NR 11	with	49040500	○

● Available from stock ○ On request: Tool is available, delivery at short notice